

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PH-21691-PCT</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <b>FOR FURTHER ACTION</b> </div> <div>             see Form PCT/ISA/220              as well as, where applicable, item 5 below.           </div> </div>	
International application No. <b>PCT/KR2004/001874</b>	International filing date ( <i>day/month/year</i> ) <b>26 JULY 2004 (26.07.2004)</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>26 JULY 2003 (26.07.2003)</b>
Applicant  <b>POSTECH FOUNDATION et al</b>		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/001874

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos.: 4 - 7, 9 - 12  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
  
The feature of claims 4 - 7, 9 - 12 (pharmaceutical composition including the nanoparticles) are not referred to in the description. Therefore, claims 4 - 7, 9 - 12 are not supported by the description as required by PCT Article 6.
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any addition fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/001874

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 C07D 487/04**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C07D 487/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN(CAPLUS)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 0068232 A1 (UNISEARCH LIMITED) 16 NOV. 2000, see entire document.	1 - 3, 8
A	WO 02096553 A2 (SYNTEC GESELLSCHAFT FÜR CHEMIE UND TECHNOLOGIE DER INFORMATIONSAUFZEICHNUNG MBH) 05 DEC. 2002, see entire document.	1 - 3, 8
A	WO 03004500 A1 (POSTECH FOUNDATION) 16 JAN. 2003, see entire document.	1 - 3, 8
A	WO 03024978 A1 (POSTECH FOUNDATION) 27 MARCH 2003, see entire document.	1 - 3, 8
A	WO 03055888 A1 (POSTECH FOUNDATION) 10 JULY 2003, see entire document.	1 - 3, 8
A	SAMSONENKO et. al. 'Synthesis and crystal structure of the nanosized supramolecular SmIII complex with macrocyclic cavitand cucurbituril' In: Russian Chemical Bulletin, 2002, 51(10), p.1915-1918	1 - 3, 8

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

16 NOVEMBER 2004 (16.11.2004)

Date of mailing of the international search report

**16 NOVEMBER 2004 (16.11.2004)**

Name and mailing address of the ISA/KR



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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2004/001874

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0068232 A1	16-11-2000	US 6793839 B	21-09-2004
		EP 1181293 A1	27-02-2002
WO 02096553 A2	05-12-2002	EP 1397205 A2	17-03-2004
WO 03004500 A1	16-01-2003	KR 3003901 A	14-01-2003
		EP 1406905 A1	14-04-2004
WO 03024978 A1	27-03-2003	KR 3024426 A	26-03-2003
		EP 1430061 A1	23-06-2004
WO 03055888 A1	10-07-2003	KR 3060053 A	12-07-2003
		EP 1463732 A1	06-10-2004